CONTENTS OF VOLUME 18

Volume 18 Number 1

Review Paper

L. G. Roda, L. Bongiorno, E. Trani, A. Urbani and M. Marini — 1 — Positive and negative immunomodulation by opioid peptides

Research Papers

L. Sterin-Borda, E. Borda, M. E. Sales, M. Rodriguez and M. M. E. De Bracco — 17 — Induction of ileum muscarinic cholinoceptor signal transduction pathways by rat interferon-gamma

J. Slánský, O. Kadlec, J. Ševčík and K. Mašek — 23 — Further evidence on the interaction of muramyl dipeptide with the serotonergic system

H. Yoshii, Y. Fukata, K. Yamamoto, H. Yago, S. Suehiro, Y. Yanagihara and H. Okudaira — 31 — A new assay system detecting antibody production and delayed-type hypersensitivity responses to trinitrophenyl hapten in an individual mouse

S.-J. Yu and J. Tseng — 37 — Fu-Ling, a Chinese herbal drug, modulates cytokine secretion by human peripheral blood monocytes

A. F. Haczku, A. B. Kay and C. J. Corrigan — 45 — Inhibition of re-expression of surface CD4, but not CD8, on activated human T-lymphocytes by the immunosuppressive drugs dexamethasone and cyclosporine A: Correlation with inhibition of proliferation

Z.-M. Zheng and S. C. Specter — 53 — Delta-9-tetrahydrocannabinol suppresses tumor necrosis factor α maturation and secretion but not its transcription in mouse macrophages

L. Garin, J. Bernaud, N. Picot, M. Salvi, F. Corallo, C. Bloy and D. Rigal — 69 — RU 41 740 (Biostim) and IL-4, or IL-13, have opposite effects on CD14, CD23, HLA-DR and HLA-DQ on monocytes

S. Kivity, O. Agami, M. Topilsky and E. Fireman — 75 — Effect of nedocromil sodium and cromoline sodium on atopic basophil function

V. Saada, C. Pham-Huy, J. Voisin, S. Righenzi, P. Rucay, J. R. Claude and H. T. Duc — 79 — Comparative evaluation of *in vitro* and *in vivo* immunosuppressive potential of cyclosporin G with cyclosporin A and FK-506

Volume 18, Number 1 *(Cont'd)*

Short Communication
M. Mihara, Y. Moriya and Y. Ohsugi 89 IL-6–soluble IL-6 receptor complex inhibits the proliferation of dermal fibroblasts

An Invitation to Join the International Society for Immunopharmacology i

General Information and Instructions to Authors iii

Volume 18 Number 2

Research Papers
C. D'Agostini, A. T. Palamara, C. Favalli, M. Sivilia, G. Febbraro, C. Bue and E. Garaci 95 Efficacy of combination therapy with amantadine, thymosin α1 and α/β interferon in mice infected with influenza A virus

T. Hasegawa, H. Kanasugi, M. Hidaka, T. Yamamoto, S. Abe and H. Yamaguchi 103 Effect of orally administered heat-killed *Enterococcus faecalis* FK-23 preparation on neutropenia in dogs treated with cyclophosphamide

S. F. Egger, G. S. Brown, L. S. Kelsey, K. M. Yates, L. J. Rosenberg and J. E. Talmadge 113 Studies on optimal dose and administration schedule of a hematopoietic stimulatory β-(1,4)-linked mannan

G. Didoli, S. Revelli, H. Davila, M. E. Ferro, M. Romero-Piffiguer and O. Bottasso 127 Chronic *Trypanosoma cruzi* infection in the rat: cyclophosphamide-induced recovery of adjuvant arthritis correlates with changes in the levels of lymph node T-lymphocytes and class II^+ cells

H.-A. Buc, A. Moncion and J.-L. Pérignon 135 Staurosporine and herbimycin A augment agonist-induced elevation of cAMP in Jurkat T-lymphoblasts

S. Mukai, H. Kato, S. Kimura, K. Asai, Y. Kawahito, M. Inoue, Y. Yamamura, H. Sano, S. Sugino, S. Shu and M. Kondo 141 Efficacy of *in vitro* sensitized cells generated by *in vivo* priming with OK-432 for adoptive immunotherapy of the poorly immunogenic B16-BL6 melanoma

M. Žunić, F. Kricek, P. Dukor and G. M. Bahr 155 Oral administration of muramyl dipeptide into mice modulates cell proliferation, immunoglobulin synthesis and cytokine mRNA levels in gut associated lymphoid tissues

Short Communications
J. A. Price III, J. M. C. McGee, M. R. Patten and D. Snyder 163 Effects of the adjuvant MPL+TDM on tumor challenge in the B16 mouse melanoma model

Volume 18, Number 2 *(Cont'd)*

M. Sato, J. Yamaki, M. Hamaya and H. Hojo — 167 — Synergistic induction of metallothionein synthesis by interleukin-6, dexamethasone and zinc in the rat

An Invitation to Join the International Society for Immunopharmacology — i

General Information and Instructions to Authors — iii

Volume 18 Number 3

W. Abebe, N. Ali and D. K. Agrawal — 173 — Platelet-activating factor-induced inositol 1,4,5-trisphosphate generation in undifferentiated and differentiated U937 cells: role of tyrosine kinase

P. R. Pouillart, F. M. Audibert, L. A. Chedid, P. L. Lefrancier and G. M. Bahr — 183 — Enhancement by muramyl peptides of the protective response of interferon-α/β against encephalomyocarditis virus infection

I. C. M. Mohede, I. Van Ark, F. M. Brons, A. J. M. Van Oosterhout and F. P. Nijkamp — 193 — Salmeterol inhibits interferon-γ and interleukin-4 production by human peripheral blood mononuclear cells

D. Chandratilleke, K. Hàla and J. A. Marsh — 203 — Effects of *in vivo* thyroid hormone treatment on the expression of interleukin-2 receptors on avian splenocytes

Short Communication
M. Oka, S. Hazama, M. Suzuki, F. Wang, K. Wadamori, N. Iizuka, S. Takeda, Y. Akitomi, Y. Ohba, K. Kajiwara, T. Suga and T. Suzuki — 211 — *In vitro* and *in vivo* analysis of human leukocyte binding by the antitumor polysaccharide, lentinan

Immunotoxicology
M. Yeh, M.-P. Chang and D. C. Norman — 219 — Effects of exogenous cytokines on the ethanol-mediated suppression of murine thymocyte proliferation

An Invitation to Join the International Society for Immunopharmacology — i

General Information and Instructions to Authors — iii

Volume 18 Number 4

L. Miraglia, T. Geiger, C. F. Bennett and N. M. Dean	227	Inhibition of interleukin-1 type I receptor expression in human cell-lines by an antisense phosphorothioate oligodeoxynucleotide
Y. Kawano and T. Noma	241	Inhibition by lecithin-bound iodine (LBI) of inducible allergen-specific T lymphocytes' responses in allergic diseases
G. Chen, L. L. Colombo, M. C. Lopez and R. R. Watson	251	Effect of ethanol and cocaine treatment on the immune system of v-Ha-*ras*-transgenic mice
A. Marchant and M. Goldman	259	OM-85 BV upregulates the expression of adhesion molecules on phagocytes through a CD14-independent pathway
C. I. Ezeamuzie	263	Anti-allergic activity of cyclosporin-A metabolites and their interaction with the parent compound and FK 506
S. Nakai, T. Kawakita, H. Nagasawa, K. Himeno and K. Nomoto	271	Thymus-dependent effects of a traditional Chinese medicine, Ren-shen-yang-rong-tang (Japanese name; Ninjin-youei-to), in autoimmune MRL/MP-*lpr/lpr* mice
An Invitation to Join the International Society for Immunopharmacology	i	
General Information and Instructions to Authors	iii	

Volume 18 Number 5

U. Hurtenbach, E. Böggemeyer, T. Stehle, C. Museteanu, E. Del Pozo and M. M. Simon	281	Prednisolone reduces experimental arthritis, and inflammatory tissue destruction in SCID mice infected with *Borrelia burgdorferi*
B. Mazur-Kolecka, V. A. Grigoriev, M. Kubera, A. Basta-Kaim and J. Shani	289	Effect of hypothalamic lesion or chemical axotomy on restitution of immunoreactivity in mice after cyclophosphamide administration
H. M. Kim, S. B. Han, G. T. Oh, Y. H. Kim, D. H. Hong, N. D. Hong and I. D. Yoo	295	Stimulation of humoral and cell mediated immunity by polysaccharide from mushroom *Phellinus linteus*
J.-I. Sin, N. Plotnikoff and S. Specter	305	Anti-retroviral activity of methionine enkephalin and AZT in a murine cell culture

Volume 18, Number 5 *(Cont'd)*

T. Kashida, N. Narasaki, K. Tsujihara, K. Naito and S. Takeyama — 311 — Augmentation of tumor immunity by 6-MPG, a water-soluble derivative of 6-mercaptopurine, in mice

P. H. Naylor, M. R. Smith, M. G. Mutchnick, C. W. Naylor, J. Dosescu, M. Skunca and J. A. Moshier — 321 — Thymosin α1 does not promote growth or oncogenic transformation

P. Fedoročko and N. O. Macková — 329 — Combined modality radioprotection: enhancement of survival and hematopoietic recovery in gamma-irradiated mice by the joint use of liposomal muramyl tripeptide phosphatidylethanolamine (MTP-PE) and indomethacin

S. Mianji, Y. Hamasaki, S. Yamamoto and S. Miyazaki — 339 — Inhibition by dexamethasone of the lipopolysaccharide-induced increase in IL-6 mRNA abundance and IL-6 production in human polymorphonuclear leukocytes

An Invitation to Join the International Society for Immunopharmacology — i

General Information and Instructions to Authors — iii

Volume 18 Number 6/7

C. Kerékgyártó, L. Virág, L. Tankó G. Chihara and J. Fachet — 347 — Strain differences in the cytotoxic activity and TNF production of murine macrophages stimulated by lentinan

R. Baluna, V. Ghetie, N. Oppenheimer-Marks and E. S. Vitetta — 355 — Fibronectin inhibits the cytotoxic effect of ricin A chain on endothelial cells

G. Matsuzaki, X.-Y. Li, Y. Ohyama and K. Nomoto — 363 — Kinetics of serum granulocyte-colony stimulating factor (G-CSF) concentration and G-CSF receptor expression during G-CSF treatment of cyclophosphamide-treated mice

T. Kambayashi, N. Mazurek, C. O. Jacob, N. Wei, M. Fong and G. Strassmann — 371 — Vesnarinone is a selective inhibitor of macrophage TNFα release

M. Hisadome, T. Fukuda, H. Matsuyuki, Y. Ikeda and K. Nomoto — 379 — Enhancement of *in vivo* production of Il-1α and IL-6 in mice by Y-25510, a 1H-pyrazolo[3,4-b] pyridine-1-acetic acid derivative

Volume 18, Number 6/7 *(Cont'd)*

I. Seyler, M. Appel, J.-P. Devissaguet, P. Legrand and G. Barratt — 385 — Relationship between NO-synthase activity and TNF-α secretion in mouse macrophage lines stimulated by a muramyl peptide entrapped in nanocapsules

K. B. Hahm, I. S. Park, H. C. Kim, K. J. Lee, J. H. Kim, S. W. Cho and S. I. Lee — 393 — Comparison of antiproliferative effects of l-histamine-2 receptor antagonists, cimetidine, ranitidine, and famotidine, in gastric cancer cells

J. W. Van der Laan, H. Timmerman and H. Van Loveren — 401 — Comparison of the *in vivo* effects of morphine and methadone on natural killer cell activity in spleen, peritoneal cavity, and lungs in rats

K. Ikeda, M. Hirano, M. Takeuchi, T. Yamada and K. Tomioka — 409 — Hamster cardiac xenograft in rat ear: effect of cyclosporine A and leflunomide on survival

C. A. Lewis, A. Johnson and K. J. Broadley — 415 — Early and late phase bronchoconstrictions in conscious sensitized guinea-pigs after macro- and microshock inhalation of allergen and associated airway accumulation of leukocytes

Short Communication

M. Bukovský, D. Mlynarčik and V. Ondráčková — 423 — Immunomodulatory activity of amphiphilic antimicrobials on mouse macrophages

Immunotoxicology

L. Poluektova, K. Krzystyniak, R. Desjardins, D. Flipo and M. Fournier — 429 — *In vitro* lymphotoxicity and selective T cell immunotoxicity of high doses of acyclovir and its derivatives in mice

An Invitation to Join the International Society for Immunopharmacology — i

General Information and Instructions to Authors — iii

Volume 18 Number 8/9

M. Jin, S. Kim and B. K. Kim — 439 — Induction of B cell proliferation and NF-κB activation by a water soluble glycan from *Lentinus lepideus*

J. Liu, K. Mengel and K. D. Friedberg — 449 — *In vivo* effects of fluconazole on lymphocyte subpopulations of the thymus and spleen in mice: flow cytometry analysis

J. J. Moreno — 459 — Effect of retinoids on dermal inflammation and on arachidonic acid mobilization and metabolism in murine 3T6 fibroblasts retinoids, arachidonate release and metabolism

S. Zhang and T. M. Petro 467 The effect of nicotine on murine CD4 T cell responses

H. Jiang, C. A. Stewart, D. J. Fast and R. W. Leu 479 Tumor-derived recognition factor (TDRF) induces production of TNF-α by murine macrophages, but requires synergy with IFN-γ alone or in combination with IL-2 to induce nitric oxide synthase

P. Asselin, C. Benquet, K. Krzystyniak, P. Brousseau, R. Savard and M. Fournier 491 *In vivo* indomethacin reverse exercise-induced immunosuppression in rats

M. L. Chabernaud, J. F. Lagorce, M. H. Ratinaud, J. Buxeraud and C. Raby 499 Methimazole inhibits peripheral lymphocyte proliferation by inducing S-quiescent phase arrest

K. S. Calabrese, P. H. Lagrange and S. C. Gonçalves da Costa 505 Chagas' disease: enhancement of systemic inflammatory reaction in cyclophosphamide treated mice

Short Communication

N. Ivanovska, P. Georgieva and R. Barot-Ciorbaru 515 Correlation between inhibited alternative complement activity and the protective effect induced by *Nocardia* lysozyme digest (NLD) during *Klebsiella pneumoniae* infection in mice

Immunotoxicology

E. J. De Waal, W. De Jong, H. Van Der Vliet, B. Verlaan and H. Van Loveren 523 An immunotoxicity screening study on salmeterol in rats

An Invitation to Join the International Society for Immunopharmacology i

General Information and Instructions to Authors iii

Volume 18 Number 10

L. Liu, E. Buchner, D. Beitze, C. B. Schmidt-Weber, V. Kaever, F. Emmrich and R. W. Kinne 529 Amelioration of rat experimental arthritides by treatment with the alkaloid sinomenine

J. A. Krieger, J. C. Landsiedel and D. A. Lawrence 545 Differential *in vitro* effects of physiological and atmospheric oxygen tension on normal human peripheral blood mononuclear cell proliferation, cytokine and immunoglobulin production

N. Ivanovska and S. Philipov 553 Study on the anti-inflammatory action of *Berberis vulgaris* root extract, alkaloid fractions and pure alkaloids

Volume 18, Number 10 *(Cont'd)*

M. L. Belladonna, M. C. Fioretti, R. Bianchi, P. Puccetti and U. Grohmann 563 A retroviral peptide encoded by mutated *env* p15E gene is recognized by specific $CD8^+$ T lymphocytes on drug-treated murine mastocytoma P815

M. Provinciali, G. Di Stefano, S. Stronati, W. Raffaeli, G. Pari and N. Fabris 577 Role of prolactin in the modulation of NK and LAK cell activity after short- or long-term morphine administration in neoplastic patients

Immunotoxicology

M. Zhao, J. Lytton and S. W. Burchiel 589 Inhibition of sarco-endoplasmic reticulum calcium ATPases (SERCA) by polycyclic aromatic hydrocarbons: lack of evidence for direct effects on cloned rat enzymes

R. R. Dugyala and R. P. Sharma 599 The effect of aflatoxin B_1 on cytokine mRNA and corresponding protein levels in peritoneal macrophages and splenic lymphocytes

An Invitation to Join the International Society for Immunopharmacology i

General Information and Instructions to Authors iii

Volume 18 Number 11

O. Franzese, E. Bonmassar, A. Marcucci and C. D'Onofrio 609 Functional antagonism between IL-2 and PGA_1 or PGJ_2 in the control of proliferation of human cord blood-derived mononuclear cells

D. W. Hoskin, T. Phu and A. P. Makrigiannis 623 Pentoxifylline inhibits granzyme B and perforin expression following T-lymphocyte activation by anti-CD3 antibody

P. L. Black, K. M. McKinnon, S. L. Wooden and M. A. Ussery 633 Antiviral activity of biological response modifiers in a murine model of AIDS. Requirement for augmentation of natural killer cell activity and synergy with oral AZT

O. V. Kalyuzhin, A. E. Zemlyakov and B. B. Fuchs 651 Distinctive immunomodulating properties and interactivity with model membranes and cells of two homologous muramyl dipeptide derivatives differing by their lipophilicity

L. Prokešová, L. Tučková, B. Cukrowska, H. Tlaskalová-Hogenová and R. Barot-Ciorbaru 661 Occurrence and specificity of human natural and *in vitro* induced antibodies to *Nocardia opaca* antigens

Volume 18, Number 11 *(Cont'd)*

Short Communication
S. Niwa, T. Totsuka and S. Hayashi 669 Inhibitory effect of fluvastatin, an HMG-CoA reductase inhibitor, on the expression of adhesion molecules on human monocyte cell line

An Invitation to Join the International Society for Immunopharmacology i

General Information and Instructions to Authors iii

Volume 18 Number 12

G. Migliorati, A. Bartoli, G. Nocentini S. Ronchetti, R. Moraca, C. Marchetti and C. Riccardi 677 Dexamethasone modulates CD2 expression

T. Fu, C. Burbage, E. P. Tagge, T. Brothers, M. C. Willingham and A. E. Frankel 685 Ricin toxin contains three lectin sites which contribute to its *in vivo* toxicity

P. J. D. Bouic, S. Etsebeth, R. W. Liebenberg, C. F. Albrecht, K. Pegel and P. P. Van Jaarsveld 693 Beta-sitosterol and beta-sitosterol glucoside stimulate human peripheral blood lymphocyte proliferation: implications for their use as an immunomodulatory vitamin combination

J. Gao, A. Caruso, M. de Francesco, A. D. Canaris, S. Licenziati, M. Corulli, F. Dima, F. Fallacara, L. Savio, F. Martinelli, S. Fiorentini, F. Gargiolo and A. Turano 701 Heat-killed *Bacillus subtilis* inhibits T-cell proliferative response to mitogens and recall antigens

S. S. Botros, B. L. Doughty, Z. A. Shaker, M. M. Akl, R. Sharmy, T. M. Diab and H. I. Hassanein 707 Efficacy of an antipathology vaccine in murine schistosomiasis administered with and without chemotherapy

H. Kusuhara, H. Komatsu, M. Hisadome and Y. Ikeda 719 (±)-3-[4-(2-dimethylamino-1-methylethoxy)-phenyl]-1H-pyrazolo[3,4-b]pyridine-1-acetic acid (Y-25510) stimulates production of IL-1β and IL-6 at the level of messenger RNA expression in cultured human monocytes

G. Lin, P. R. Pentel, W. L. Shelver, D. E. Keyler, C. A. Ross, Y. Hieda, M. C. Flickinger, C. A. Pennell and M. P. Murtaugh 729 Bacterial expression and characterization of an anti-desipramine single-chain antibody fragment

C. L. D'Hellencourt, L. Diaw, P. Cornillet and M. Guenounou 739 Differential regulation of TNFα, IL-1β, IL-6, IL-8, TNFβ, and IL-10 by pentoxifylline

Short Communications

R. G. Coffey, E. Snella, K. Johnson and S. Pross — 749 — Inhibition of macrophage nitric oxide production by tetrahydrocannabinol *in vivo* and *in vitro*

Y. Okai and K. Higashi-Okai — 753 — Possible immunomodulating activities of carotenoids in *in vitro* cell culture experiments

Immunotoxicology

K. D. Santos, M. Rocha, C. M. D. Wannmacher and M. Wajner — 761 — The influence of organic acids on the proliferation of human peripheral lymphocytes activated by concanavalin A and pokeweed mitogen

Volume Contents and Author Index — i

An Invitation to Join the International Society for Immunopharmacology — xix

General Information and Instructions to Authors — xxi